

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

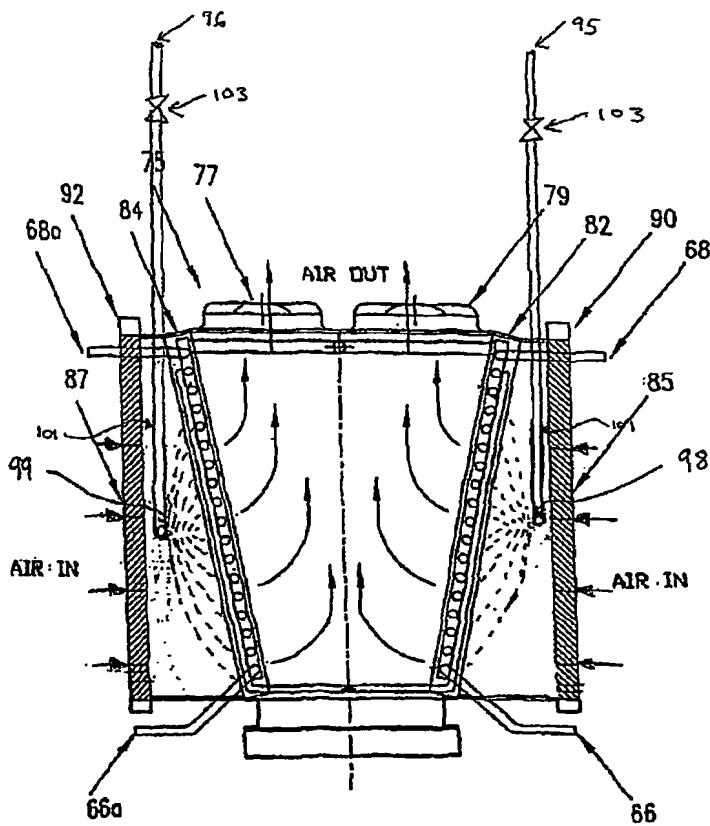
PCT

(10) International Publication Number
WO 2005/005905 A1

- (51) International Patent Classification⁷: F28D 5/00, F24F 3/06, 11/06, F28C 3/06, 3/08
- (52) International Application Number: PCT/AU2004/000926
- (53) International Filing Date: 9 July 2004 (09.07.2004)
- (54) Filing Language: English
- (55) Publication Language: English
- (56) Priority Data: 2003903551 9 July 2003 (09.07.2003) AU
- (57) Applicant (for all designated States except US): MULLER INDUSTRIES AUSTRALIA Pty Ltd [—/AU]; 28 Fabio Court, Campbellfield, VIC 3061 (AU).
- (58) Inventors; and
- (59) Inventors/Applicants (for US only): HALL, Grant, David [AU/AU]; 10 Roycliff Court, Box Hill, VIC 3129
- (60) Agent: WATERMARK PATENT & TRADEMARK ATTORNEYS; 290 Burwood Road, Hawthorn, VIC 3122 (AU).
- (61) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (62) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: SYSTEM AND METHOD OF COOLING



(57) Abstract: The invention provides a fluid cooling heat exchanger including: a primary heat exchanger including a closed circuit for circulating cooling fluid; an air cooler located upstream of the primary heat exchanger; a fan arrangement operating to force air through the air cooler and the primary heat exchanger, and a liquid dispenser which operates to dispense liquid into the forced air. The liquid dispenser is located downstream of the air cooler and upstream from the primary heat exchanger. The air cooler includes a moisture absorbent material that is, in use, maintained moist such that air forced through the cooler is cooled by the action of evaporation prior to being forced over a portion of the closed circuit in the primary heat exchanger.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

BEST AVAILABLE COPY